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**BEFORE THE BOARD OF PATENT APPEALS
AND INTERFERENCES**

MAILED

Application Number: 09/688,834

DEC 28 2007

Filing Date: October 17, 2000

Appellant(s): KOGA, TOSHIO

GROUP 3600

Diallo T. Crenshaw (Reg. No. 52,778)
For Appellant

EXAMINER'S ANSWER

This is in response to the appeal brief filed September 20, 2007 appealing from the
Office action mailed January 5, 2007.

(1) Real Party in Interest

A statement identifying by name the real party in interest is contained in the brief.

(2) Related Appeals and Interferences

The examiner is not aware of any related appeals, interferences, or judicial proceedings which will directly affect or be directly affected by or have a bearing on the Board's decision in the pending appeal.

(3) Status of Claims

The statement of the status of claims contained in the brief is correct.

(4) Status of Amendments After Final

The appellant's statement of the status of amendments after final rejection contained in the brief is correct.

(5) Summary of Claimed Subject Matter

The summary of claimed subject matter contained in the brief is correct.

(6) Grounds of Rejection to be Reviewed on Appeal

The appellant's statement of the grounds of rejection to be reviewed on appeal is correct.

(7) Claims Appendix

The copy of the appealed claims contained in the Appendix to the brief is correct.

(8) Evidence Relied Upon

6,259,376	FUYAMA	7-2001
6,834,267	FUYAMA	12-2004

(9) Grounds of Rejection

The following ground(s) of rejection are applicable to the appealed claims:

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuyama (U.S. Patent No. 6,259,376).

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuyama (U.S. Patent No. 6,259,376), as applied to claim 1 above, in view of Fuyama '267 (U.S. Patent No. 6,834,267).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-5 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuyama (U.S. Patent No. 6,259,376).

Fuyama discloses a vehicle-onboard electronic toll collection apparatus, comprising:

[Claim 1] (a) vehicle speed detection means for detecting a speed of a motor vehicle which passes through a toll gate station equipped with an electronic toll collection system (Fig. 2; abstract; col. 4, line 25 through 5, line 54);

(b) communication means for exchanging electronic toll collection information for settlement of toll charge/payment transaction with said toll gate station upon passing through said toll gate station (col. 5, line 55 through col. 6., line 7);

(c) measuring means for measuring reception field intensity of the received electronic toll collection information within a communication coverage area (Fig. 2; abstract; col. 4, line 25 through 5, line 54); and

(d) decision means for making decision on the basis of said detected vehicle speed and said measured reception field intensity as to a location within said communication coverage area where electronic toll collection information communication can be started while sustaining favorable reception field intensity at said detected vehicle speed, to thereby allow said communication means to perform communication processing on the basis of result of said decision (Fig. 2; abstract; col. 4, line 25 through 5, line 54);

[Claim 2] wherein said detection means is so designed as to sample distance data which ensure more favorable reception field intensity than the reception field intensity at an entrance location of said communication coverage area on the basis of speed at which said motor vehicle enters said communication coverage area, to thereby generate distance-versus-reception field intensity data (Fig. 2; abstract; col. 4, line 25 through 5, line 54);

[Claim 3] wherein said decision means is so designed as to determine said distance data which can ensure favorable reception field intensity through statistical processing on the basis of speed which said motor vehicle enters said communication coverage area (Fig. 2; abstract; col. 4, line 25 through 5, line 54);

[Claim 4] wherein said detection means is so designed as to convert the distance data to time data based on area entering speed (Fig. 2; abstract; col. 4, line 25 through 5, line 54);

[Claim 5] wherein said decision means is so designed as to convert the distance data to time data based on area entering speed (Fig. 2; abstract; col. 4, line 25 through 5, line 54).

As per claim 1, while Fuyama's vehicle speed detection means and communication means have components located on or within the vehicle (Fig. 2; abstract; col. 4, line 25 through 5, line 54), Fuyama's measuring means and decision means are located externally to the vehicle at the toll station (Figs. 1, 2, 4, 6, 8). In other words, Fuyama does not expressly teach that the measuring means and decision means are physically located on or within the vehicle (i.e., provided on the vehicle). However, the location of these means does not affect the recited structure or functionality. Additionally, a shift in the location of recited parts is deemed to be obvious in light of prior art teachings addressing the structure and functionality of the recited parts, as supported by *In re Japikse*, 86 USPQ 70, 73; 182 F2d 207 (CCPA 1950). Therefore, the Examiner submits that the claimed invention is obvious in light of Fuyama since Fuyama teaches the recited structure and functionality corresponding to these elements, as discussed above.

Claims 6 and 7 are rejected under 35 U.S.C. 103(a) as being unpatentable over Fuyama (U.S. Patent No. 6,259,376), as applied to claim 1 above, in view of Fuyama '267 (U.S. Patent No. 6,834,267).

Regarding claims 6 and 7, Fuyama does not expressly teach the inclusion of image display means for displaying the electronic toll collection information exchanged through said communication means as an image while stopping display of the electronic toll collection information in dependence on a vehicle speed signal outputted from said vehicle speed detection means (claim 6) or voice output means for generating a synthesized voice message signal for prompting change of speed of the motor vehicle in dependence on a vehicle speed signal outputted from said vehicle speed detecting means, for thereby outputting said message in voice (claim 7). However, Fuyama '267 discloses a toll system in which a driver is prevented from entering toll information if the driver's speed is above an acceptable threshold (e.g., if the vehicle is not immobile). If the vehicle is not immobile, "CPU 11 displays a message to the effect that a key operation is prohibited during running of vehicle and also provides a voice message to the same effect in step 153...In this way, the user is prohibited from operating the keyboard portion 16, this ensures the safety of vehicle driving." (Col. 5, lines 3-9) In other words, the display outputs a warning instead of enabling the toll data input based on the driver's speed. Additionally, speed warnings may be provided using a voice message. Both Fuyama and Fuyama '267 are directed toward toll systems that measure vehicle speed; therefore, the Examiner submits that it would have been obvious to one of ordinary skill in the art at the time of Applicant's invention to modify

Fuyama to include image display means for displaying the electronic toll collection information exchanged through said communication means as an image while stopping display of the electronic toll collection information in dependence on a vehicle speed signal outputted from said vehicle speed detection means (claim 6) or voice output means for generating a synthesized voice message signal for prompting change of speed of the motor vehicle in dependence on a vehicle speed signal outputted from said vehicle speed detecting means, for thereby outputting said message in voice (claim 7) in order to help ensure the safety of vehicle driving, as suggested in col. 5, lines 3-9 of Fuyama '267.

(10) Response to Argument

Appellant argues, "nowhere does Fuyama '376 disclose or suggest a vehicle speed detecting means (which constitutes a part of an electronic toll collection apparatus) for detecting the speed of a motor vehicle which passes through a toll gate station equipped with an electronic toll collection system" (page 10 of the Appeal Brief). Any velocity determination (as taught by Fuyama '376) is based on a distance traveled in relation to a given time period. Furthermore, Fuyama '376 uses the velocity measurement to determine a sufficient time interval for establishing a communication link (col. 5, lines 1-54). This time interval is ultimately derived from a distance measurement. "Generally, the predetermined interval is twice or three times the time interval for establishing the communication link, for example 500 ms, which corresponds (slightly longer) to the interval (482 ms) necessary for traveling p1 to p2 at 30 Km/h. The predetermined interval is longer than the interval that the vehicle travels from the p1

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to p2 at a relatively high speed, so that if the speed of the vehicle 35 is high (more than 30 Km/h), the communication link is judged in response to the second sensor s2." (col. 5, lines 41-50).

Appellant submits similar arguments for dependent claims 4 and 5. Appellant further submits that "even if, arguendo a time interval is ultimately derived from a distance measurement, Fuyama '376 only discusses a predetermined interval, therefore Fuyama could not possibly disclose or suggest converting distance data to time data based on an area entering speed." (Page 12 of the Appeal Brief) First, the claimed invention does not specify when the distance data is converted to time data. Second, Fuyama '376 uses the distance data to derive a measurement of a sufficient time interval for establishing a communication link. This determination must be made as a car is approaching the toll area, i.e., such a determination must be made as a car is entering the toll area in order to effect the intensity of the communication signal in time for the car to pay a toll. Looking toward Appellant's specification for clarification of the metes and bounds of the claimed conversion, the Examiner finds the following explanation:

When the vehicle speed and the distance which can ensure the ETC information communication at the favorable level have been determined, the distance is then converted to the time taken for the motor vehicle to travel over that distance, whereon the communication start timing (received signal processing timing) measured from the time point at which the motor vehicle entered the service area (i.e., since the service area entry time point) is set (step S5). Once the received signal processing timing has been established, the vehicle-onboard ETC apparatus can thereafter perform the ETC information signal receiving processing after the time measured from the time point at which the motor vehicle

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entered the service area has reached the ETC information communication starting timing (received signal processing start timing) (steps S6 and S7). (Pages 14-15 of the Specification)

Based on Appellant's own specification, it appears that the claimed conversion is not a literal conversion of distance to time (e.g., based on a specific equation or calculation), but instead a mere correlation between the distance traveled into an understanding of when to start the communication link. In other words, the claimed invention measures time in order to identify when a communication link is to begin. Similarly, Fuyama '376 takes the predetermined time interval measurements as an indicator of when (i.e., at what time) to start the communication link. Fuyama '376 measures time in addition to velocity in an area corresponding to a distance between two points (p1, p2). While Fuyama '376 measures a distance between two vehicles in order to establish distinct communications with each vehicle, there must be a correlation made between a distance and a timing factor for beginning communications with the desired vehicle. Even looking at Appellant's intervening claim 2, the distance actually refers to "sample distance data which ensure more favorable reception field intensity..." Similarly, Fuyama '376 talks about defining predetermined relationships between distances/velocities and timing in order to more effectively establish desired communication links (please see at least column 5).

On page 10 of the Appeal Brief, Appellant argues that "nowhere does Fuyama '376 disclose or suggest that a vehicle-on board electronic toll collection apparatus comprises the claim features listed above." (Page 10 of the Appeal Brief) The Examiner has explained in the art rejection where the structure in claim 1 is disclosed in Fuyama

'376. Appellant has not provided support for the assertion that Fuyama '376 does not disclose said specific structure; therefore, Appellant's arguments are non-persuasive. Again, Appellant is reminded that the location of these means does not affect the recited structure or functionality. Additionally, a shift in the location of recited parts is deemed to be obvious in light of prior art teachings addressing the structure and functionality of the recited parts, as supported by *In re Japikse*, 86 USPQ 70, 73; 182 F2d 207 (CCPA 1950). Therefore, the Examiner submits that the claimed invention is obvious in light of Fuyama '376 since Fuyama '376 teaches the recited structure and functionality corresponding to these elements, as set forth in the art rejection of claim 1. Appellant continues to argue that *In re Japikse* involved claims directed toward a hydraulic power press and therefore is not relevant to the instantly claimed application (page 11 of the Appeal Brief). The Examiner respectfully disagrees. The fair teachings of *In re Japikse* would be applicable to various analogous instances of a shift in location of parts (and not just a shift in the location of parts of a hydraulic power press), especially when prior art teachings address the structure and functionality of the recited parts. Appellant has not explained how the specific position of the recited elements in the claimed invention provides a different operation (compared to the prior art) or how variation of the position of these elements yields an unobvious benefit over the prior art. Additionally, a shift in the location of Fuyama '376's parts would also be obvious since a combination of prior art teachings is deemed to be obvious if each part would function as expected within the combination (see *KSR International Co. v. Teleflex, Inc.*, 82 USPQ2d 1385 (U.S. 2007)). Again, Appellant has not explained how the specific position of the recited elements in

the claimed invention provides a different operation (compared to the prior art) or how variation of the position of these elements yields an unobvious benefit over the prior art.

Appellant argues that "neither Fuyama '376 nor Fuyama '267 discloses or suggests the specific feature of generating a synthesized voice message signal for prompting change of speed of the motor vehicle in dependence on a vehicle speed signal outputted from the vehicle speed detecting means" (page 13 of the Appeal Brief). The Appellant fails to address the Examiner's specific line of reasoning in the rejection of claims 6 and 7 in light of the *combination* of Fuyama '376 and Fuyama '267. In response to Appellant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986). Column 4, lines 50-60 of Fuyama ('267) explains how a travel status of a vehicle reflects whether or not a vehicle is in a status of "running" or "immobility." "Running" means that the car is moving at a speed above 0, while "immobility" means that the car is not moving (i.e., the car is going at 0). If an operator of the vehicle attempts to enter data via a keyboard, the travel status of the vehicle is checked. If the traveling status is not equal to zero (i.e., the vehicle is running), then the vehicle operator is given a visual and/or a voice message warning him/her that data input is not allowed while the vehicle is in motion (Column 4, line 65 through column 5, line 9). This message is effectively a warning to change (e.g., slow down) his/her speed.

Furthermore, in response to Appellant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). The Examiner submits that the art rejection takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure.

(11) Related Proceeding(s) Appendix

No decision rendered by a court or the Board is identified by the examiner in the Related Appeals and Interferences section of this examiner's answer.

For the above reasons, it is believed that the rejections should be sustained.

Respectfully submitted,


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